Municipal Solid-State STREET LIGHTING CONSORTIUM
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THE LIGHT POST

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To have your LED project featured in THE LIGHTPOST contact us at:
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Top of The Light Post—Director's Update

While the Consortium's central focus is to provide technical assistance to municipalities, states and utilities as LED street lighting programs are considered, most LED street lighting installations have occurred at the municipal level. It is encouraging to hear that there is significant activity at the state level to convert the roadway luminaires of state highways to LED. The most recent examples include the California Department of Transportation's (CALTRANS) purchase and installation of 42,000 roadway LED units, the Washington State Department of Transportation's (WSDOT) announcement of an LED roadway project on U.S. Highway 101, the Florida Department of Transportation's (FDOT) LED installation on U.S. Highway 98, the Colorado Department of Transportation closed its bid process on March 12 for the purchase of approximately 10,000 LED streetlight fixtures for installation over the next three years, and the Alaska Department of Transportation has plans to install 800 LED streetlights in Fairbanks by this summer.

WSDOT plans to install 88 LED roadway luminaires on the Black Lake Boulevard interchange in Olympia with estimated annual energy savings of 1.7 million kWh and $75,000 in annual operation and maintenance costs. The Florida Department of Transportation has partnered with Santa Rosa County to install approximately 800 LED roadway luminaires on U.S. Highway 98. Read more about the WSDOT and FDOT programs below in "LED Street Lighting in the News."

Also, in April 2012, CALTRANS began its program of converting 67,000 fixtures to LED roadway luminaires over a two-year period with estimated energy savings of 50 percent.

The earliest of state highway installations was the I-35W Bridge in Minneapolis, Minnesota that featured LED roadway lighting on the main span of this interstate. Phase 1 of this project went online in 2008 and provided the first glimpse of how effective this technology could be in that highly challenging environment. Phase 2, involving long-term monitoring of the LED lighting is expected to yield valuable information on lumen depreciation, physical effects, and performance impacts over time. Look for updates on this installation later this year.

Together, these projects illustrate how the slow initial adoption at the state level is starting to rapidly resemble what's happening on the municipal level. As technology improves, fixture cost continues to decrease and state governments continue to identify efficiencies, perhaps other states will follow the lead of California, Washington, Florida, Colorado, Minnesota and Alaska and state-level installations will gain the momentum experienced on the municipal level.

Kind regards,

Edward Smalley
Director, Municipal Solid-State Street Lighting Consortium
Seattle City Light

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Northern Lights: Vermont Utilities and Municipalities move forward with LED Streetlights

This story was submitted by Optimal Energy's Gabe Arnold and Efficiency Vermont's Dan Mellinger.

Through an initiative with Vermont's utilities, municipalities and Efficiency Vermont, nearly two-thirds of Vermont's municipal streetlights will be converted to LED by 2015. The initiative began in 2011 after many of Vermont's municipalities expressed interest to utilities and Efficiency Vermont in converting their utility-owned street lighting to LED technology. At the time, a lease rate for LED technology was not offered by the utilities, and municipalities were frustrated by their lack of options. Green Mountain Power, the state's largest electric utility, and Efficiency Vermont, the statewide energy efficiency program, worked in partnership to develop an integrated solution to help municipalities convert their streetlights. Through lower utility streetlight lease rates and financial assistance from Efficiency Vermont, the solution allows municipalities to convert their streetlights to LED at little to no cost while saving 25% or more on their street lighting bill.

Energy efficiency program funds can often be used to mitigate financial barriers related to utility rate design or the cost of converting. In Vermont's case, energy efficiency program funds of up to $100 per fixture are offered by Efficiency Vermont to offset or eliminate the non-depreciated asset value of existing streetlights. This financial contribution from the energy efficiency program allows utilities to fully recover their costs and municipalities to pursue a town-wide conversion at little or no capital cost.

For Green Mountain Power, an investor-owned utility, it was important to reach a solution that was financially attractive to the utility and its shareholders. This is a complicated endeavor as LED technology presents many real financial challenges to utilities. The methodologies by which street lighting rates are designed can work against LED technology, resulting in rates that may lead to little savings, or even higher costs, than existing technologies. Furthermore, if lower rates are offered for LED street lights, the utility's revenue may decrease, potentially impacting a utility's financial standing. However, while street lighting revenue may decrease, the utility's profit can actually increase. Savings on fixed expenses – electricity and especially maintenance – can more than offset the loss of revenue. Utilities can earn a higher profit through a larger return on their assets – in this case a new and higher valued LED fixture asset. With a properly structured rate tariff, the municipality can pay a lower rate while the utility decreases its fixed expenses and increases its profit.

As of March 2013, 92 out of 255 Vermont municipalities have officially signed on to the initiative, and dozens more have expressed interest. These towns are in the process of assessing and evaluating their current street lighting inventory and converting to LED. By the time the initiative is complete, more than 15,000 streetlights will be converted saving more than 8 million kilowatt-hours per year of electricity. The Vermont model was a win for all involved: municipalities are reducing their street lighting costs and improving their night-time environment, utilities are delivering value and savings to their customers while improving their profit, and Efficiency Vermont is obtaining cost effective energy savings towards its energy efficiency program goals. More detailed information about the Vermont model can be found in a paper written for the American Council for an Energy Efficient Economy at the following website: **www.aceee.org/files/proceedings/2012/data/papers/0193-000144.pdf**. Additional information, including a step-by-step guide for municipalities pursing an upgrade in Vermont, can be found on the Efficiency Vermont website at **www.efficiencyvermont.com/streetlighting**

Successful Selection of LED Streetlight Luminaires Webinar: Wrap-Up

Thank you to all who attended and participated in the Consortium's first webinar of the year, by all accounts it was a successful event! It was attended by 518 people which included 104 individuals from 23 countries!

Also, thank you to all attendees who completed the brief post-webinar survey. The information gathered from the survey helps the Consortium develop future webinar content to suit your preferences.

If you were unable to attend the webinar or if you would like to refer back to it, click the following link to view the slides and listen to the presentations: **http://www1.eere.energy.gov/buildings/ssl/streetlight_webcast_03-06-2013.html**

LED Street Lighting in the News

Following are a selection of LED street lighting stories from around the country. If you find a noteworthy LED street lighting story, please submit it to us at MSSLC@seattle.gov.

- Read **here** about a partnership between Florida's Santa Rosa County and the Florida Department of Transportation to install LED roadway luminaires on a 19-mile stretch of U.S. Highway 98.
- The Washington State Department of Transportation is set to install LED roadway luminaires on U.S. Highway 101. Read about it **here**.
- Students at the University of Washington in Seattle are requesting outdoor LED lighting for enhanced night time safety. Click **here** to read the story and watch the video.
- **New Streetlights** has a story about the City of Wichita Falls RFP to purchase 475 LED fixtures.
- **Here is follow-up** information on the LED street lighting program in Independence, Missouri shared in last month's issue.

SAVE THE DATE!
Upcoming Consortium Events

MSSLC Annual Meeting: On September 11, 2013: The Consortium will hold its 2013 Annual Meeting in conjunction with the **Street and Area Lighting Conference** (SALC) at the **JW Marriott Desert Ridge Resort** in Phoenix, AZ.

- **Event Site Hotel Lodging**: JW Marriott Desert Ridge Resort
- **Rate**: $219 (Request SALC rate)

- **Off-Site Hotel Lodging**: **Hampton Inn & Suites**, Scottsdale

- **Rate**: $105 (Request MSSLC Rate) This includes complimentary wi-fi, continental breakfast and free shuttle to the JW Marriott for the meeting.